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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/764,290 | 01/23/2004 | Karsten Jordan | 2001P10197WOUS | 9415 |

7590 03/02/2005

SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPT.
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

[REDACTED] EXAMINER

GRAVINI, STEPHEN MICHAEL

[REDACTED] ART UNIT

[REDACTED] PAPER NUMBER

3749

DATE MAILED: 03/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/764,290 | JORDAN ET AL. | |
| | Examiner | Art Unit | |
| | Stephen Gravini | 3749 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 23 January 2004.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-16 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-16 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>20040123</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on August 9, 2001. It is noted, however, that applicant has not filed a certified copy of the German application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 8-12, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Bell et al. (US 5,080,527). Bell is considered to disclose either a pre-mix burner or gas turbine comprising:

a main burner 32 adapted to receive the greater part of the combustion air; and

a pilot burner 34 adapted to stabilize a lean combustion in the main burner,

wherein the pilot burner is a pore burner with a combustion material that has a fine-pore structure; or alternatively

mixing combustion air with fuel to receive a combustion gas mixture, whereby the mixing is performed by a main burner (please see column 5 line 53 through column 6 line 2);

burning the combustion gas mixture the combustion being stabilized in the main burner by a pilot burner, wherein a combustion reaction takes place in the pilot burner with in a fine pore combustion material (please see column 6 lines 3-18). Because the preamble does not limit the structure of the claimed invention, the body of the claim describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure see *Intirtool, Ltd. V. Texas Corp.*, 369 F 3d 1289, 70 USPQ2d 1780 (5/10/04). Bell is also considered to disclose the claimed fine-pore structure formation by foaming of the combustion material wherein the combustion material is ceramic (column 6 line 8), the combustion material comprises Zirconium Oxide or Silicon Carbide (column 6 line 9), and wherein the bas turbine is a stationary gas turbine (please see the stationary gas turbine prior art discussions in that disclosure).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 5-6 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell in view of Joyce (US 5,317,992). Bell is considered to disclose the claimed invention, as discussed above under the anticipatory rejection, except for the claimed Nickel or Cobalt based super alloy being a highly heat resistant steel. Joyce, another pre-mix burner, is considered to disclose the Nickel or Cobalt based super alloy being a highly heat resistant steel at column 7 lines 10-13 wherein the disclosed inconel is considered to be a super alloy since its primary components are Iron, Nickel, and Cobalt which is also highly heat resistant. It would have been obvious to one skilled in the art to combine the teachings of Bell with the Nickel or Cobalt based super alloy being a highly heat resistant steel, as considered disclosed in Joyce, for the purpose of allowing an air and fuel mixture or a porous burner element that possesses heat resistant porous material properties.

Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell in view of Suchkovsky (US 5,879,154). Bell is considered to disclose the claimed invention, as discussed above under the anticipatory rejection, except for the claimed ring channel for combustion air of the main burner that surrounds the pilot burner. Suchkovsky, another pre-mix burner, is considered to disclose a ring channel for combustion air of the main burner that surrounds the pilot burner at column 3 lines 32-40 wherein the disclosed flame spreader is considered to anticipate the claimed ring channel because both share the same burner shape and configuration. It would have been obvious to one skilled in the art to combine the teachings of Bell with the ring channel for combustion air of the main burner that surrounds the pilot burner, as

considered disclosed in Suchkovsky, for the purpose of substantially decreasing the level of NOx emissions generated by the burner assembly based on the disclosed ring coaxial arrangement.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reference N, cited in this action, is considered to disclose a pore burner forming a combustion chamber.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Gravini whose telephone number is 571 272 4875. The examiner can normally be reached on normal weekday business hours (east coast time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira S. Lazarus can be reached on 571 272 4877. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SMG
February 25, 2005

Stephen M. Gravini